

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052021\
 Data File : VL037026.D
 Acq On : 20 May 2021 16:37
 Operator : SY/AP
 Sample : M2424-08 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: May 21 01:16:29 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1231218	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.14	114	3633295	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.05	117	3285432	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.37	95	2462705	9.98	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

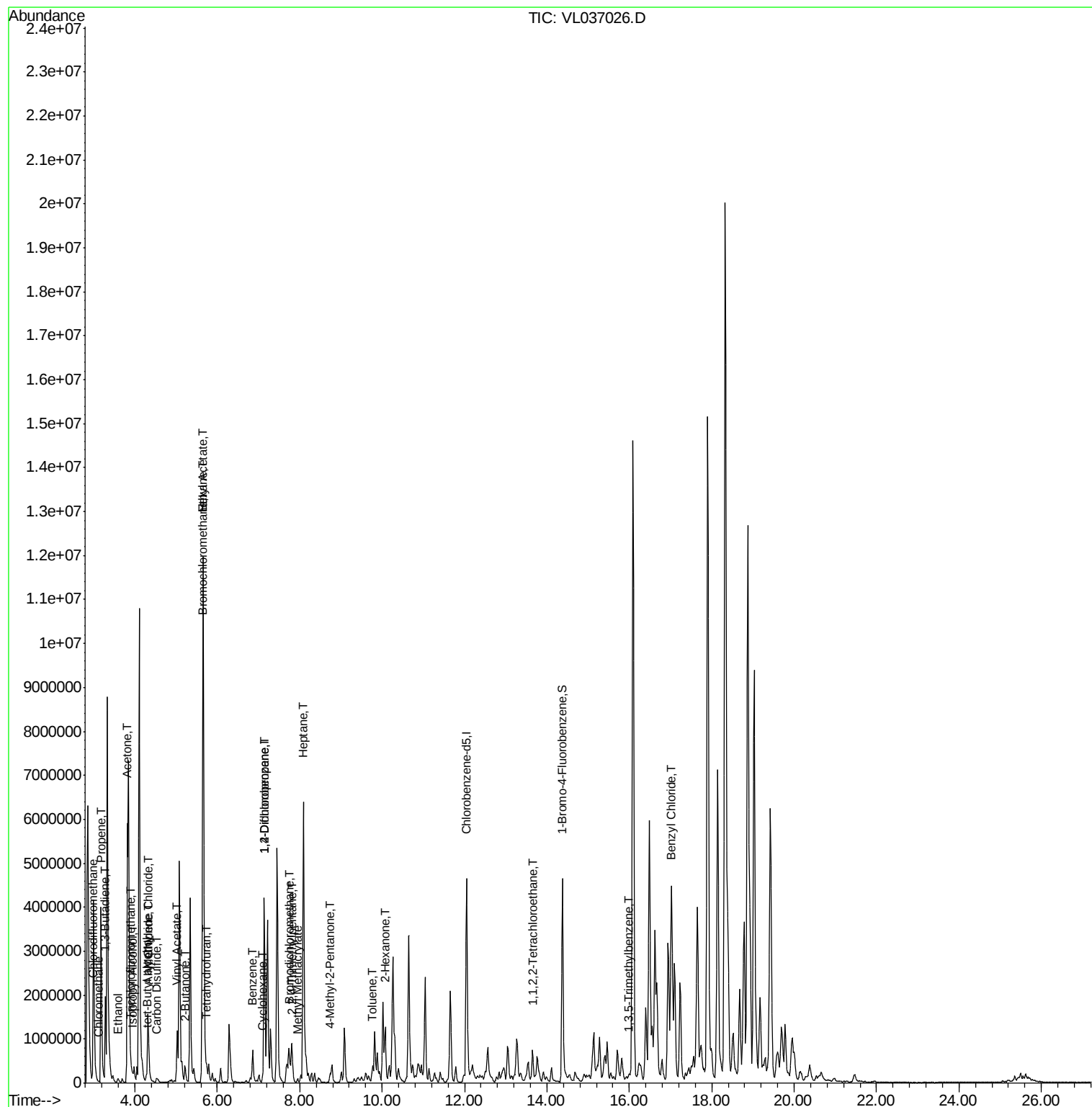
Target Compounds					Ovalue
3) Chlorodifluoromethane	2.97	51	8823	0.039 ppbv	93
4) Chloromethane	3.12	50	5630	0.073 ppbv #	81
9) Propene	3.18	41	1303695	16.141 ppbv	93
10) Heptane	8.09	43	3278580	16.288 ppbv	100
11) Trichlorofluoromethane	3.92	101	5957	0.031 ppbv	87
13) Ethanol	3.59	45	70749	6.565 ppbv #	35
15) Acetone	3.82	43	10331506	81.925 ppbv	90
16) 1,3-Butadiene	3.28	39	582100	7.430 ppbv #	16
17) tert-Butyl alcohol	4.28	59	87709	0.759 ppbv #	72
19) Isopropyl Alcohol	3.95	45	46437	0.685 ppbv #	30
20) Methylene Chloride	4.31	84	593182	8.775 ppbv	96
21) Allyl Chloride	4.34	41	105879	1.113 ppbv #	47
23) Vinyl Acetate	5.02	43	413546	2.066 ppbv #	1
25) Ethyl Acetate	5.65	43	3926084	12.956 ppbv #	78
26) Hexane	5.66	57	5505597	35.564 ppbv #	46
27) Carbon Disulfide	4.52	76	101615	0.651 ppbv #	92
30) Cyclohexane	7.10	84	38915	0.296 ppbv #	55
34) 2-Butanone	5.22	43	454580	3.436 ppbv	91
36) Benzene	6.86	78	628992	2.010 ppbv	99
39) 1,2-Dichloropropane	7.14	63	876158	7.268 ppbv #	25
41) Tetrahydrofuran	5.74	42	36701	0.487 ppbv #	38
42) Bromodichloromethane	7.75	83	11419	0.049 ppbv #	25
43) Methyl Methacrylate	7.95	69	35285	0.327 ppbv #	1
44) 2,2,4-Trimethylpentane	7.83	57	18565	0.035 ppbv #	1
50) 4-Methyl-2-Pentanone	8.74	43	14198	0.065 ppbv #	48
51) 2-Hexanone	10.07	43	792896	6.870 ppbv #	33
53) Toluene	9.77	91	246551	0.662 ppbv	100
63) 1,1,2,2-Tetrachloroethane	13.64	83	12080	0.044 ppbv #	46
66) Benzyl Chloride	17.00	91	901	0.034 ppbv #	1
73) 1,3,5-Trimethylbenzene	15.96	105	20682	0.051 ppbv #	78

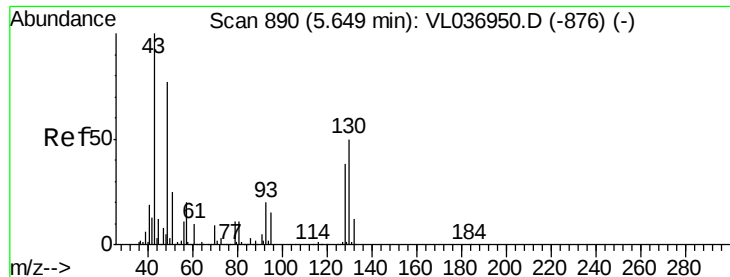
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 886

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

ClientSampleId :

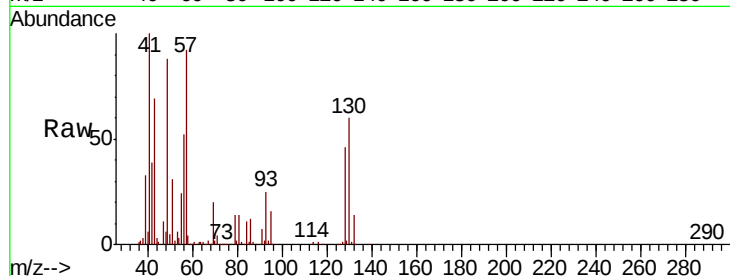
Tot Ion: 49 Resp: 1231218

Ion Ratio Lower Upper

49 100

128 52.4 26.9 80.7

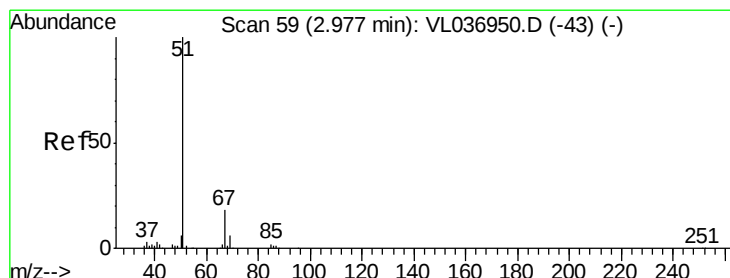
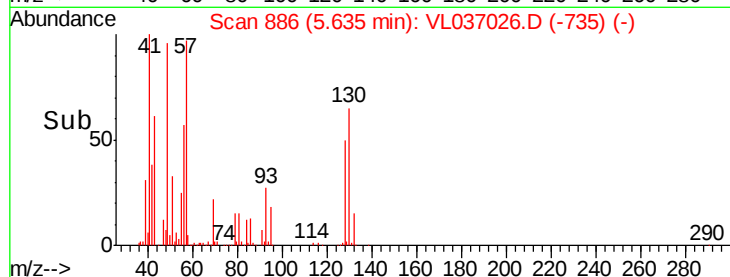
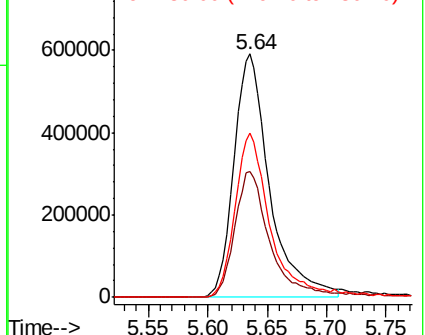
130 67.9 33.8 101.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.039 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.01 min

Lab File: VL037026.D

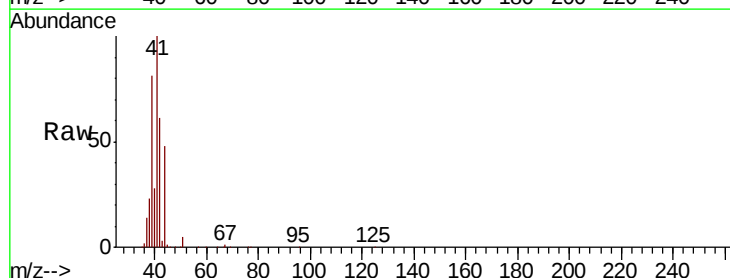
Acq: 20 May 2021 16:37

Tgt Ion: 51 Resp: 8823

Ion Ratio Lower Upper

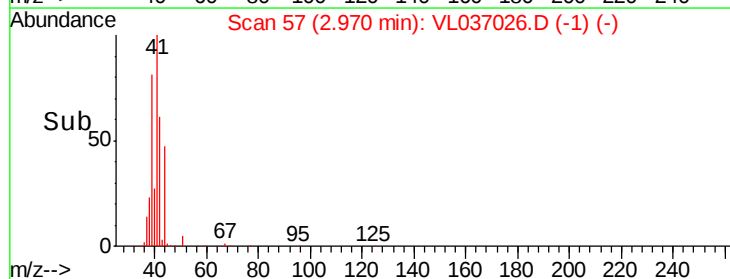
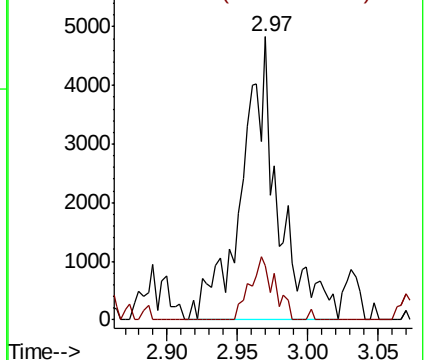
51 100

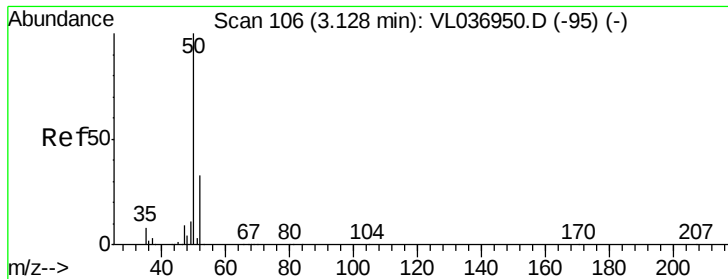
67 15.2 14.6 21.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.073 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

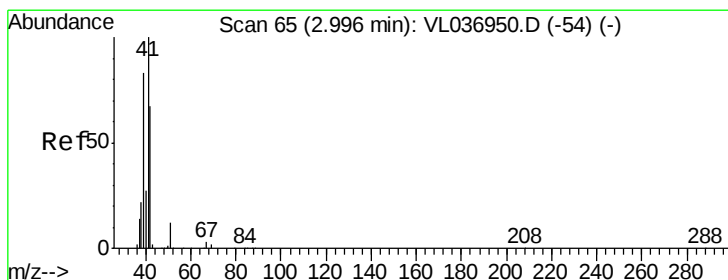
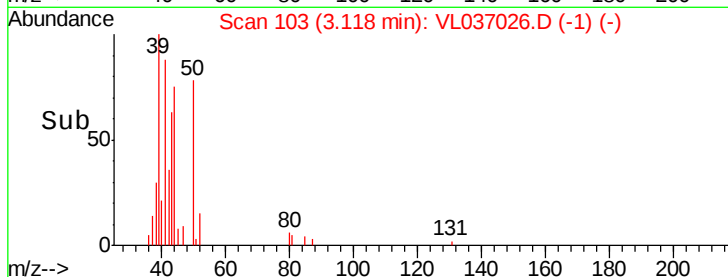
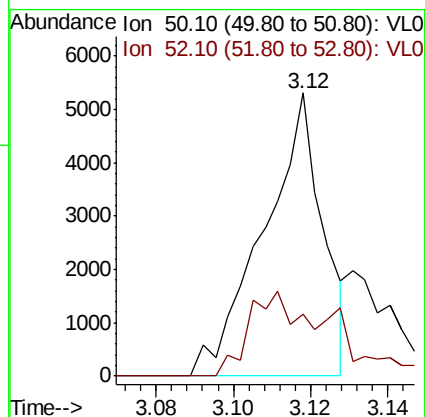
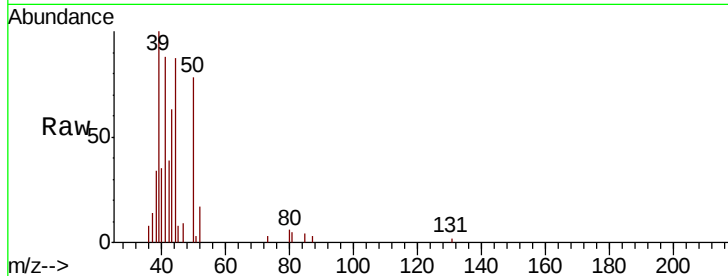
ClientSampleId :

Tot Ion: 50 Resp: 5630

Ion Ratio Lower Upper

50 100

52 22.0 26.1 39.1#



#9

Propene

Concen: 16.141 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.18 min

Lab File: VL037026.D

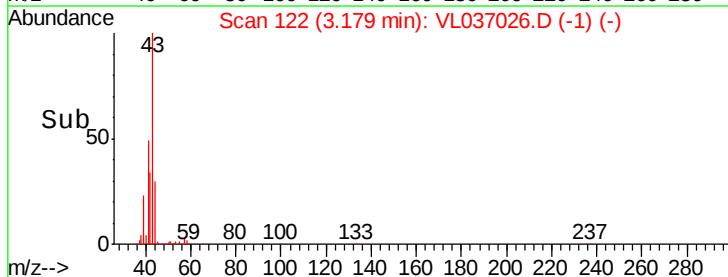
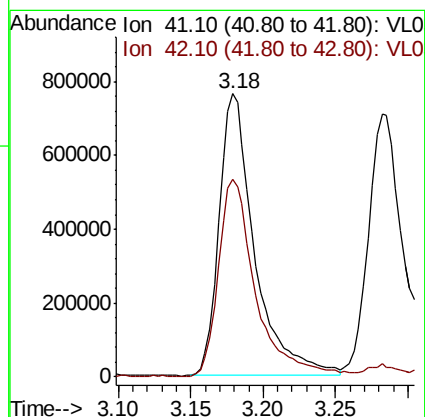
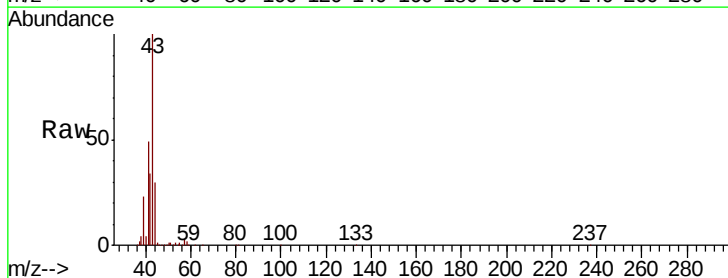
Acq: 20 May 2021 16:37

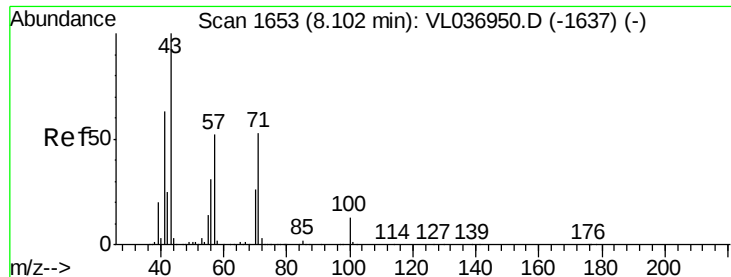
Tgt Ion: 41 Resp: 1303695

Ion Ratio Lower Upper

41 100

42 72.6 53.9 80.9





#10

Heptane

Concen: 16.288 ppbv

RT: 8.09 min Scan# 1649

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

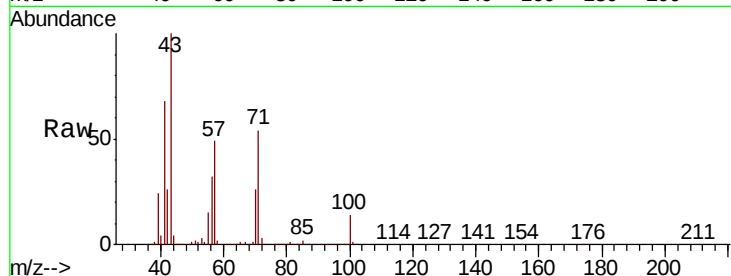
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 3278580

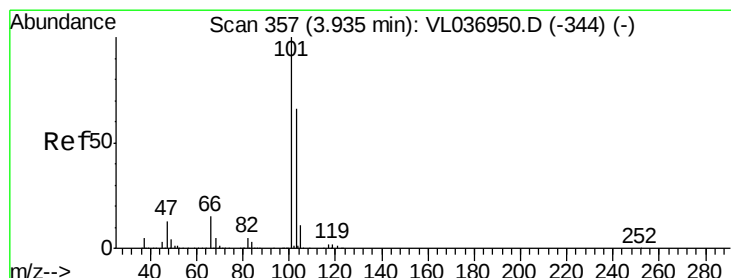
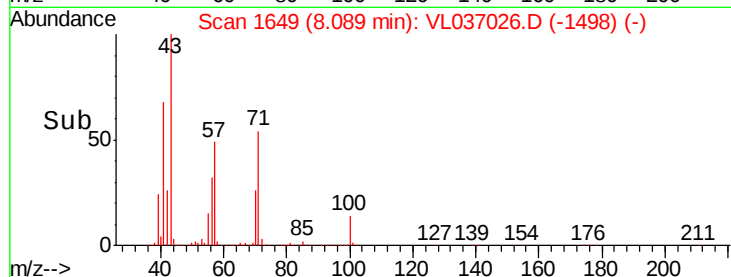
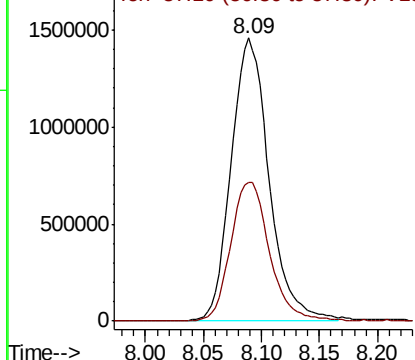
Ion Ratio Lower Upper

43 100

57 51.3 41.0 61.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.031 ppbv

RT: 3.92 min Scan# 352

Delta R.T. -0.02 min

Lab File: VL037026.D

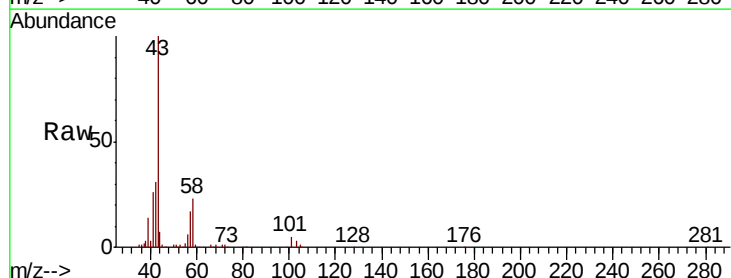
Acq: 20 May 2021 16:37

Tgt Ion:101 Resp: 5957

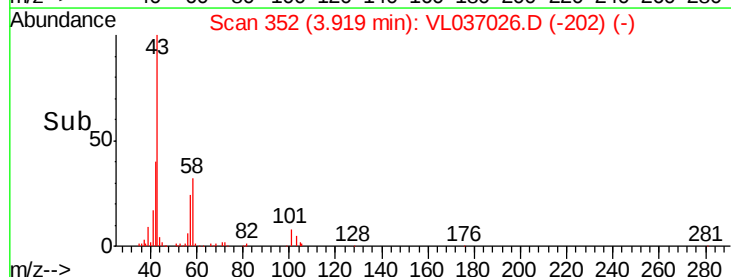
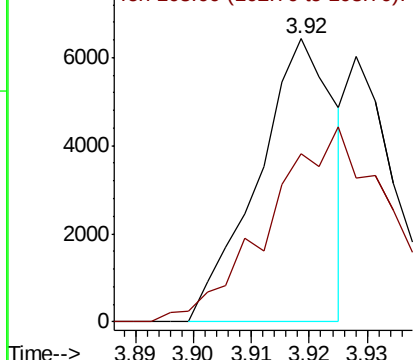
Ion Ratio Lower Upper

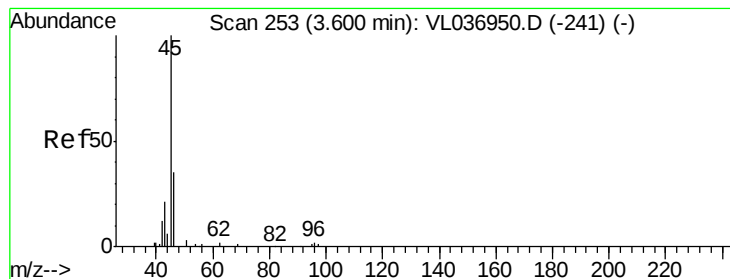
101 100

103 55.5 52.6 79.0



Abundance Ion 101.00 (100.70 to 101.70): V
Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 6.565 ppbv

RT: 3.59 min Scan# 251

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

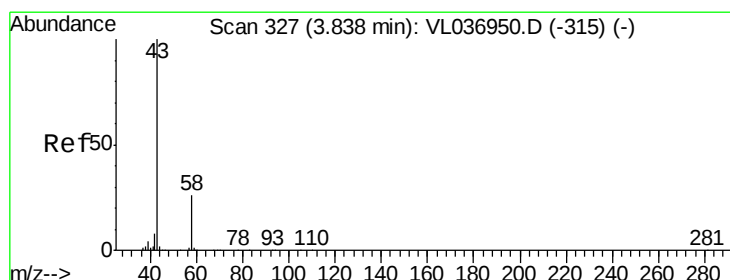
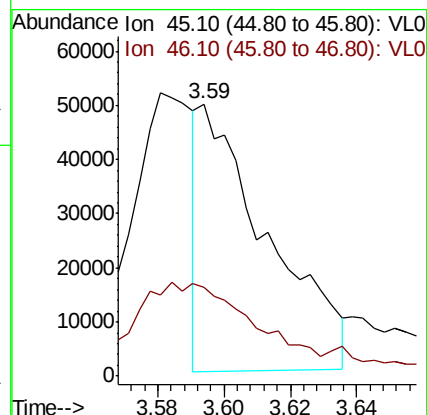
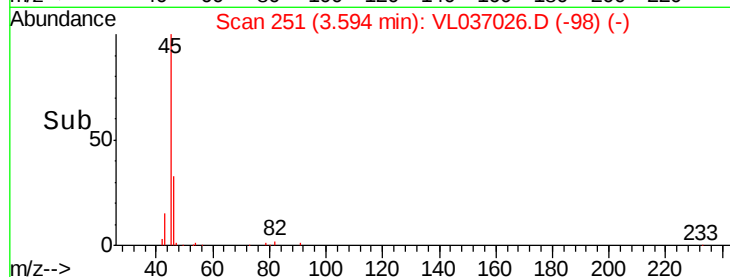
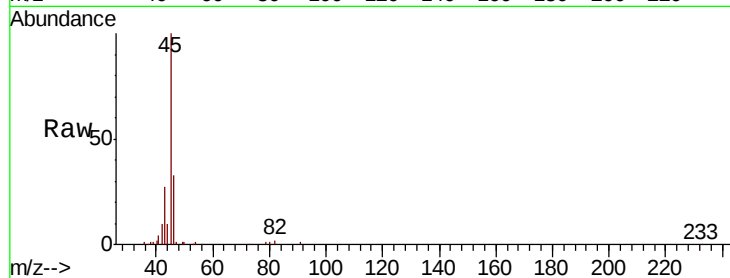
ClientSampleId :

Tot Ion: 45 Resp: 70749

Ion Ratio Lower Upper

45 100

46 0.0 16.3 65.3#



#15

Acetone

Concen: 81.925 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.02 min

Lab File: VL037026.D

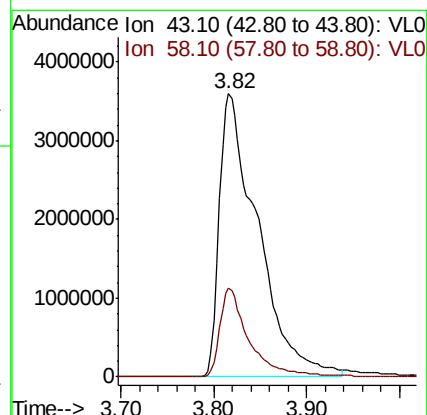
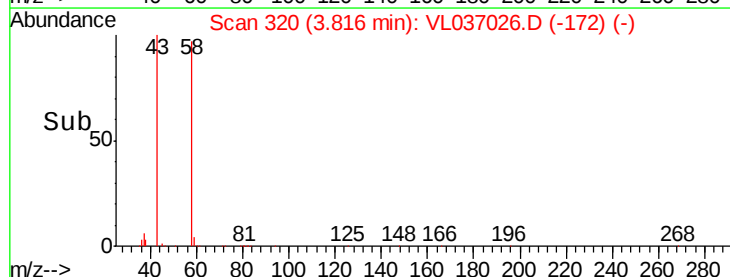
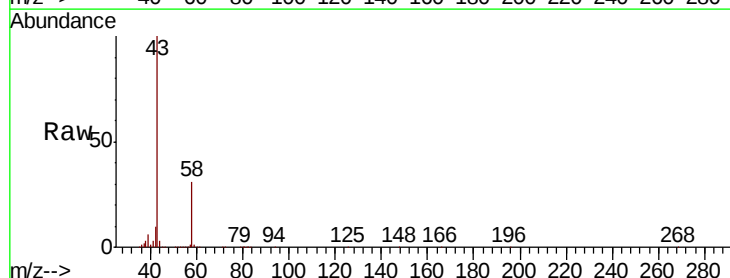
Acq: 20 May 2021 16:37

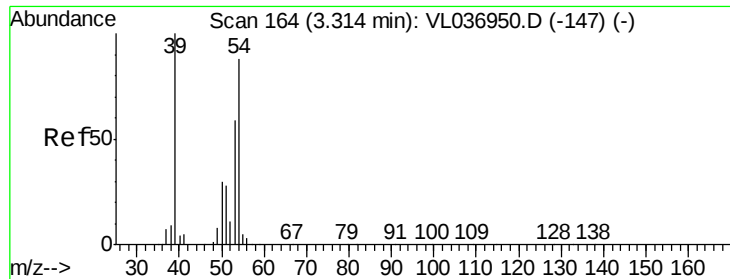
Tgt Ion: 43 Resp: 10331506

Ion Ratio Lower Upper

43 100

58 24.5 24.0 36.0





#16

1,3-Butadiene

Concen: 7.430 ppbv

RT: 3.28 min Scan# 154

Delta R.T. -0.03 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

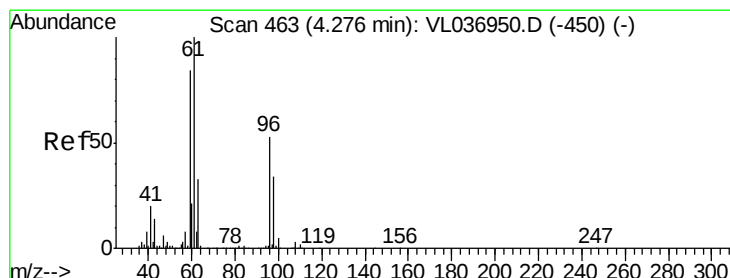
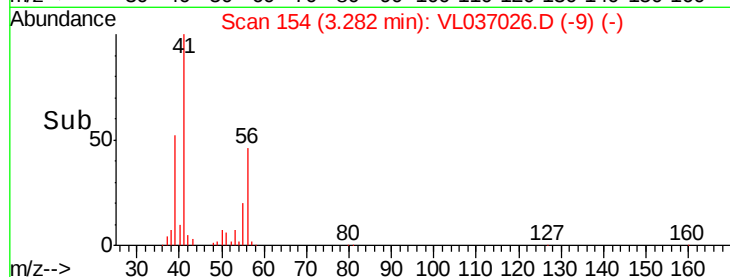
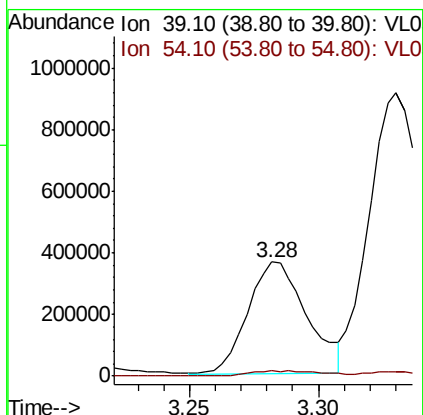
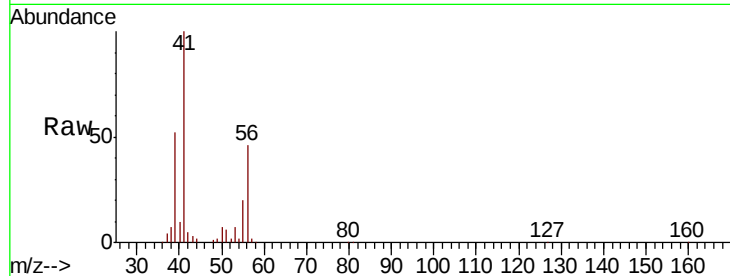
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 39 Resp: 582100

Ion Ratio Lower Upper

39 100

54 5.8 63.2 94.8#



#17

tert-Butyl alcohol

Concen: 0.759 ppbv

RT: 4.28 min Scan# 465

Delta R.T. 0.01 min

Lab File: VL037026.D

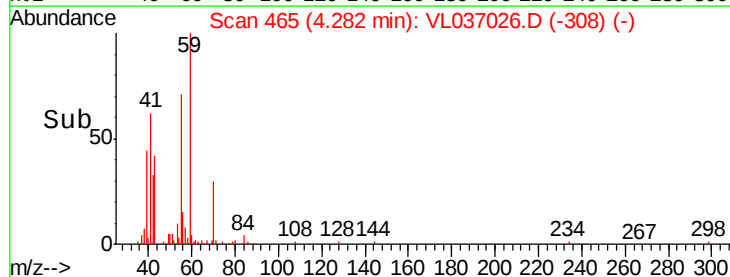
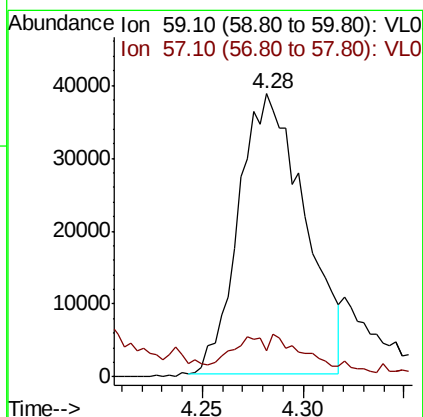
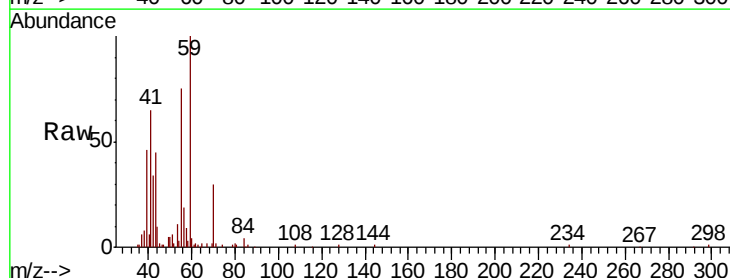
Acq: 20 May 2021 16:37

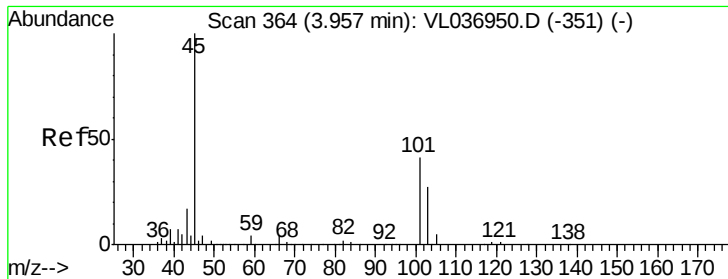
Tgt Ion: 59 Resp: 87709

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 0.685 ppbv

RT: 3.95 min Scan# 362

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

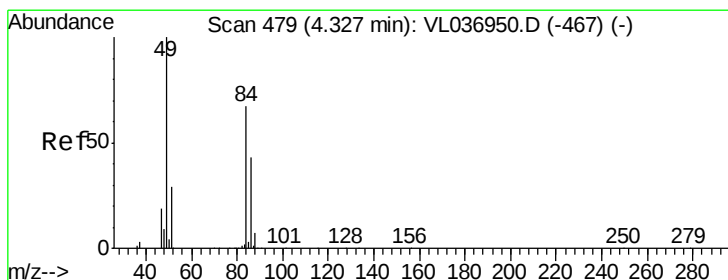
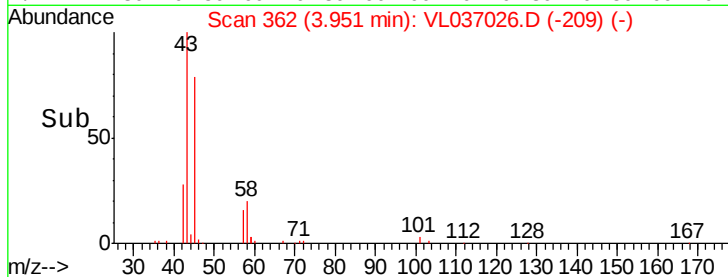
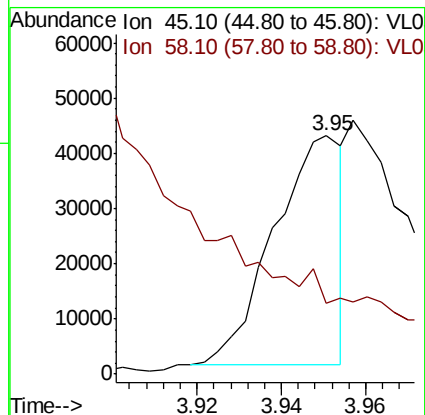
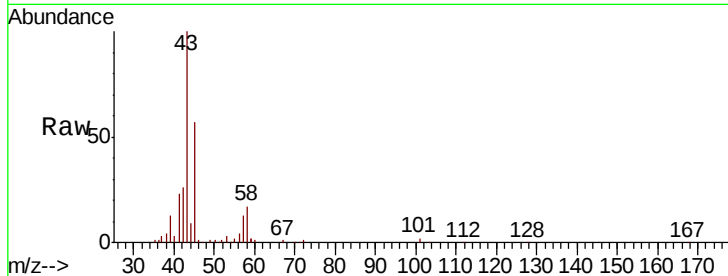
ClientSampled :

Tot Ion: 45 Resp: 46437

Ion Ratio Lower Upper

45 100

58 0.0 37.2 55.8#



#20

Methylene Chloride

Concen: 8.775 ppbv

RT: 4.31 min Scan# 475

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Tgt Ion: 84 Resp: 593182

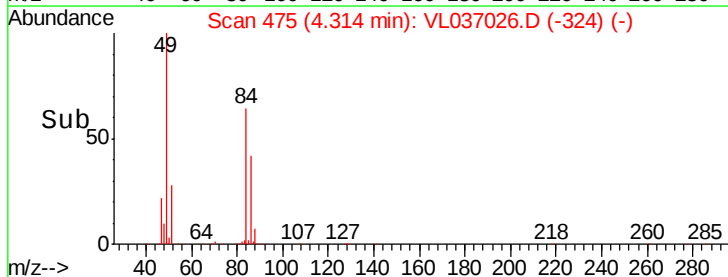
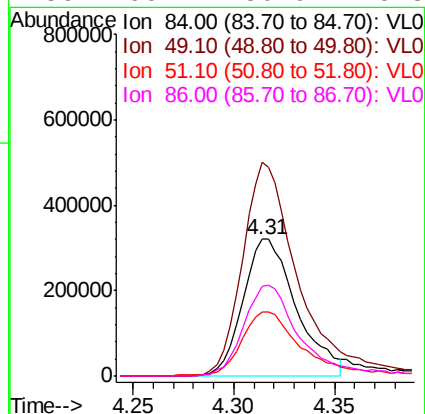
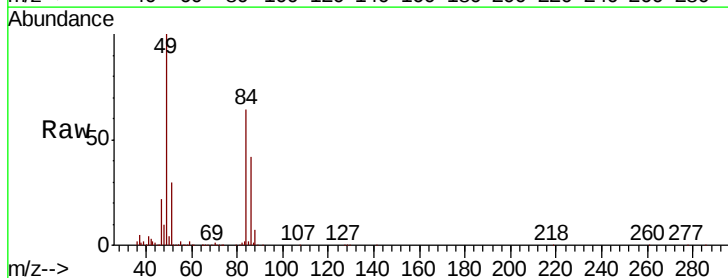
Ion Ratio Lower Upper

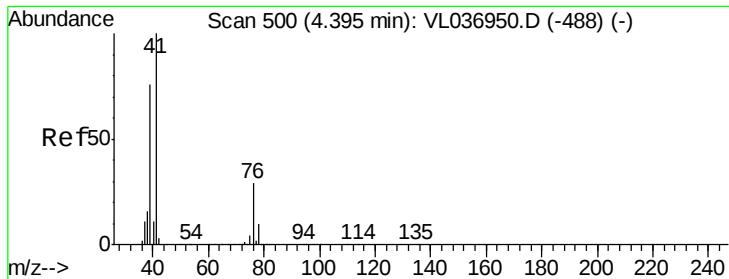
84 100

49 156.3 119.8 179.6

51 46.1 35.1 52.7

86 66.1 50.9 76.3

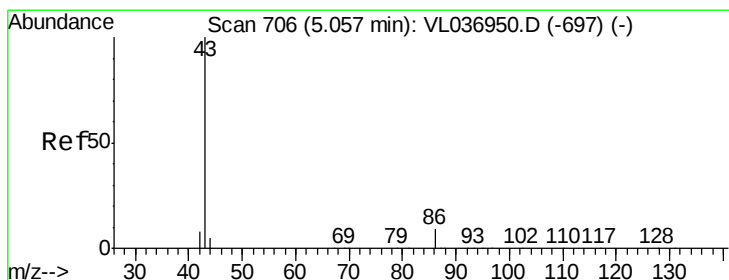
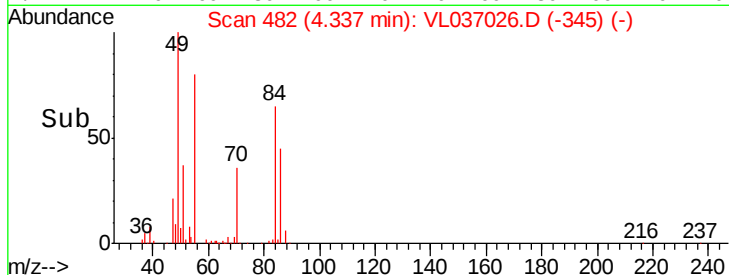
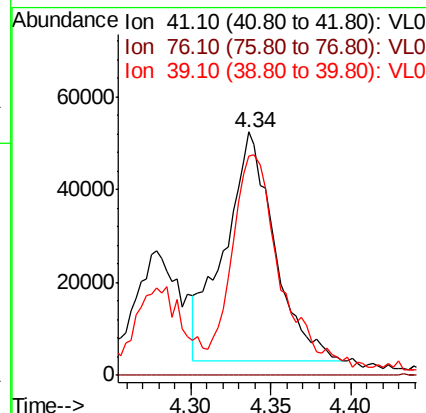
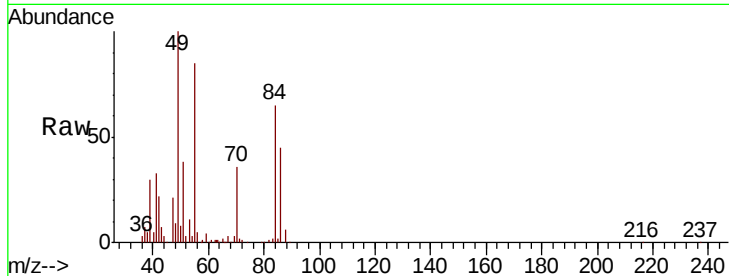




#21
Allvl Chloride
Concen: 1.113 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.06 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

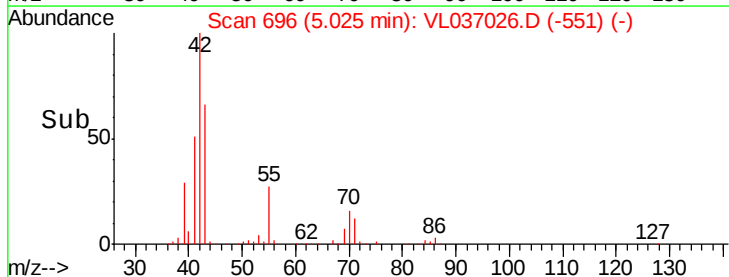
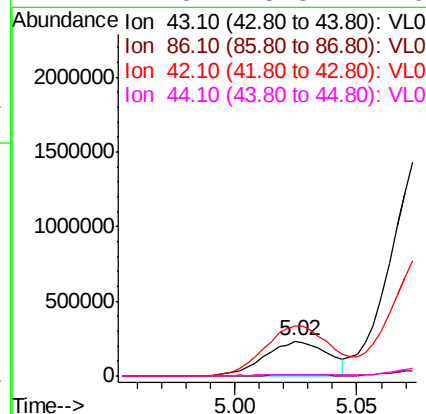
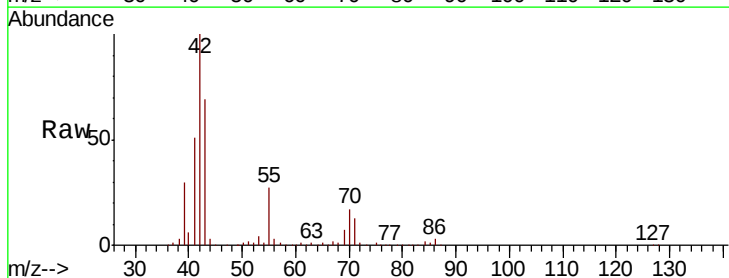
Instrument :
MSVOA_L
ClientSampleId :

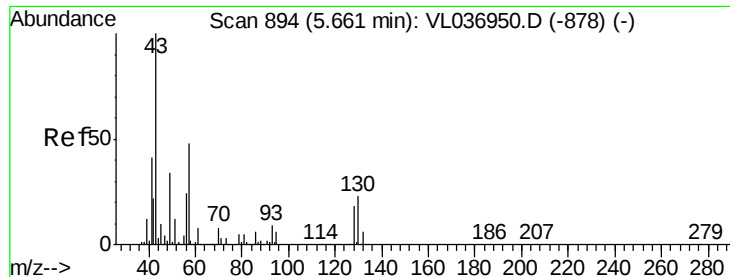
Tot Ion: 41 Resp: 105879
Ion Ratio Lower Upper
41 100
76 110.0 24.9 37.3#
39 95.1 63.7 95.5



#23
Vinyl Acetate
Concen: 2.066 ppbv
RT: 5.02 min Scan# 696
Delta R.T. -0.03 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

Tgt Ion: 43 Resp: 413546
Ion Ratio Lower Upper
43 100
86 3.8 5.8 8.8#
42 146.4 7.4 11.2#
44 2.8 3.3 4.9#





#25

Ethyl Acetate

Concen: 12.956 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.01 min

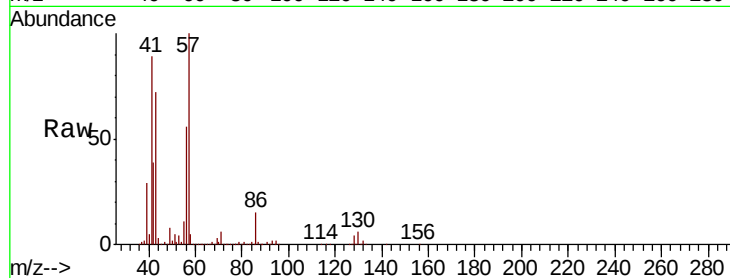
Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 3926084

Ion	Ratio	Lower	Upper
43	100		
45	0.5	7.8	11.8#
61	0.5	7.8	11.8#
70	2.0	5.6	8.4#



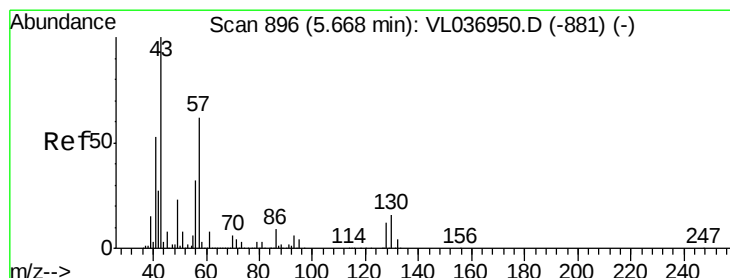
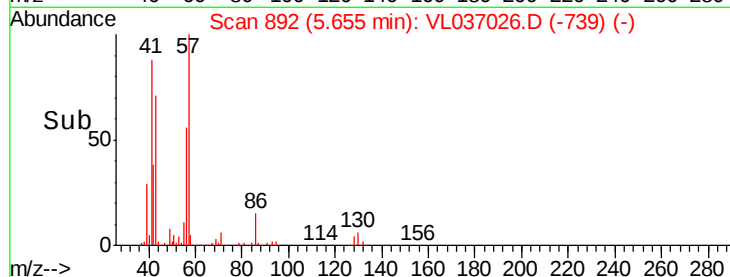
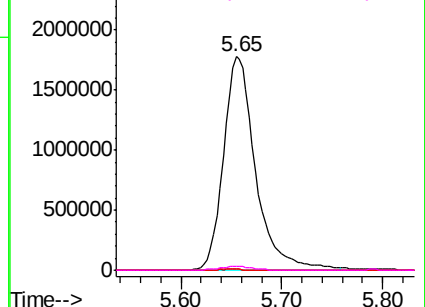
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 35.564 ppbv

RT: 5.66 min Scan# 893

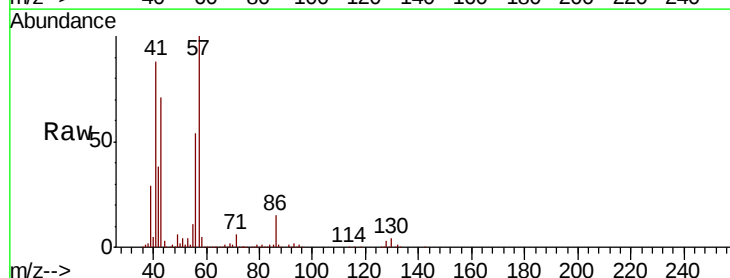
Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Tgt Ion: 57 Resp: 5505597

Ion	Ratio	Lower	Upper
57	100		
41	93.1	70.5	105.7
43	71.9	165.8	248.8#
56	55.8	42.2	63.4



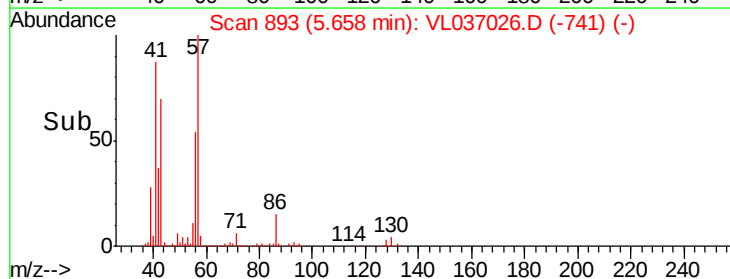
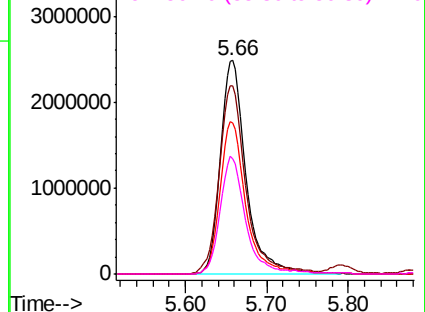
Abundance

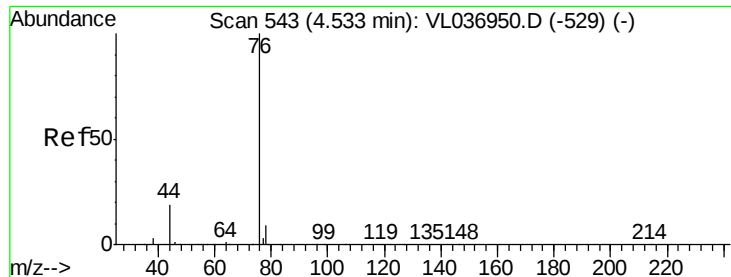
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

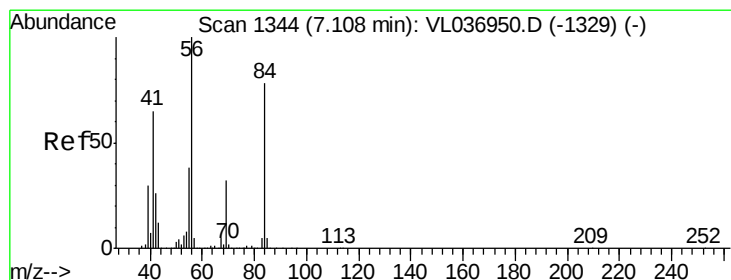
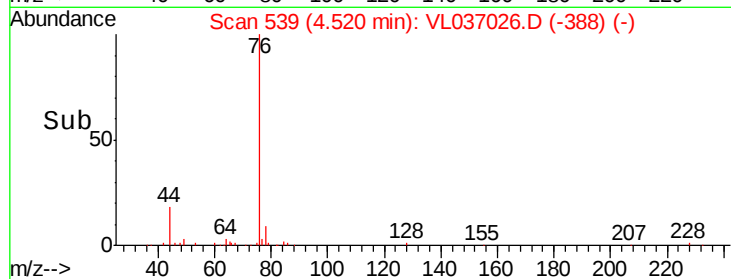
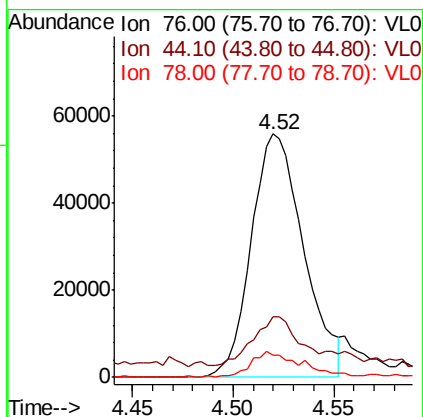
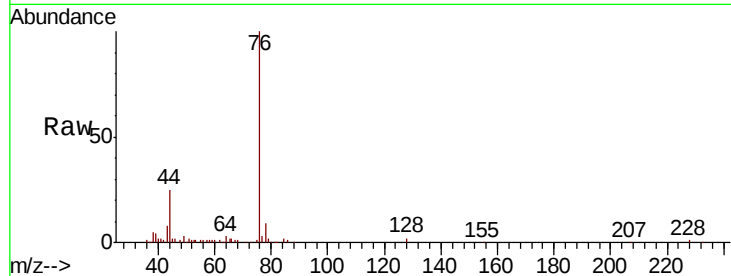




#27
Carbon Disulfide
Concen: 0.651 ppbv
RT: 4.52 min Scan# 539
Delta R.T. -0.01 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

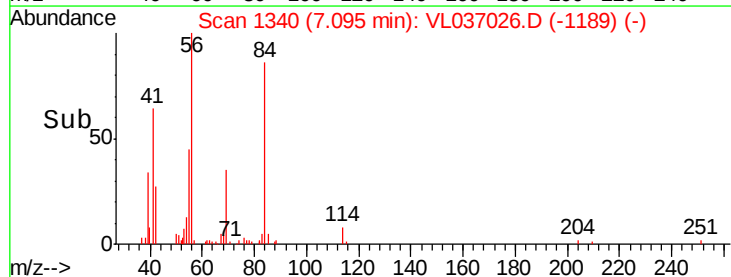
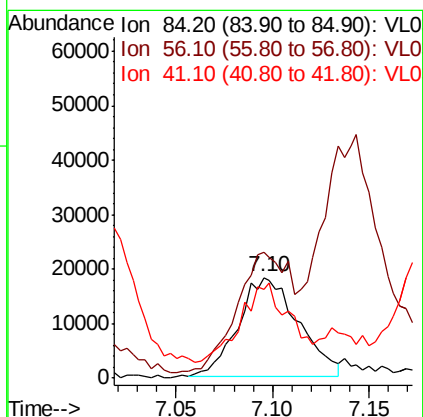
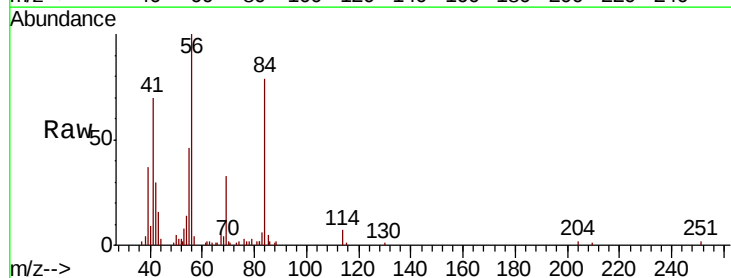
Instrument :
MSVOA_L
ClientSampleId :

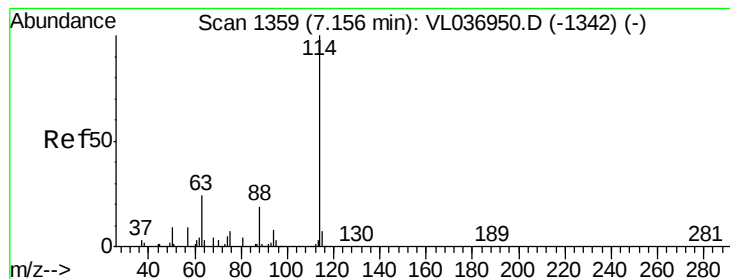
Tot Ion: 76 Resp: 101615
Ion Ratio Lower Upper
76 100
44 23.8 15.5 23.3#
78 11.2 7.8 11.6



#30
Cyclohexane
Concen: 0.296 ppbv
RT: 7.10 min Scan# 1340
Delta R.T. -0.01 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

Tgt Ion: 84 Resp: 38915
Ion Ratio Lower Upper
84 100
56 115.1 107.9 161.9
41 0.0 65.5 98.3#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.14 min Scan# 1354

Delta R.T. -0.02 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

ClientSampleId :

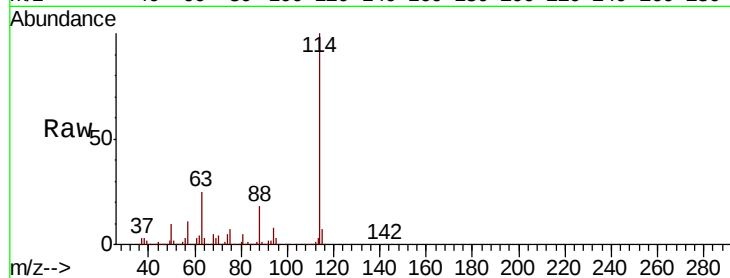
Tot Ion:114 Resp: 3633295

Ion Ratio Lower Upper

114 100

63 24.8 19.6 29.4

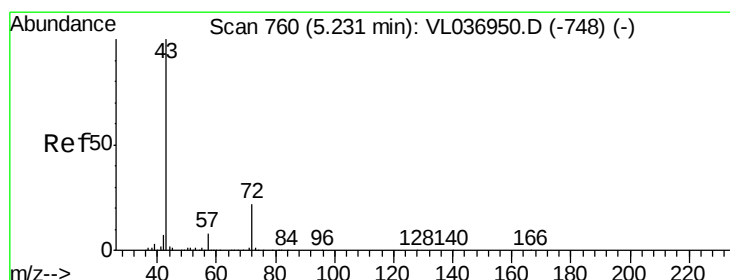
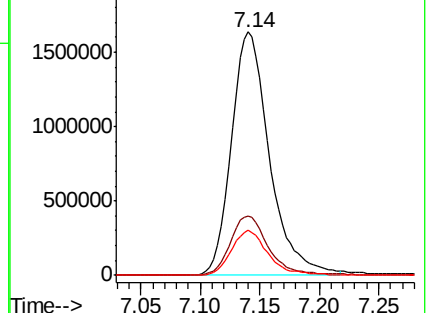
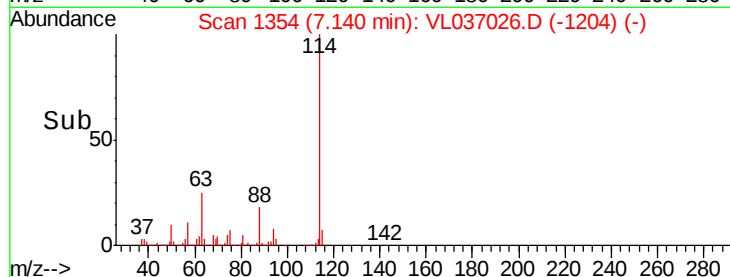
88 18.2 14.6 21.8



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 3.436 ppbv

RT: 5.22 min Scan# 757

Delta R.T. -0.01 min

Lab File: VL037026.D

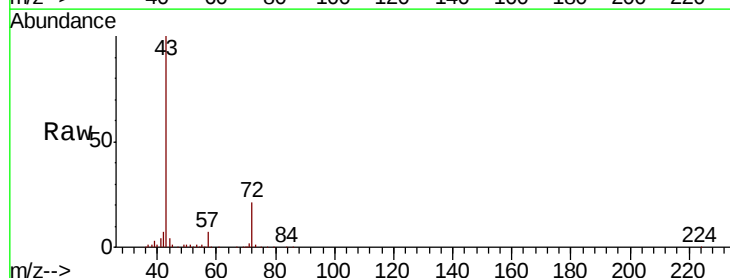
Acq: 20 May 2021 16:37

Tgt Ion: 43 Resp: 454580

Ion Ratio Lower Upper

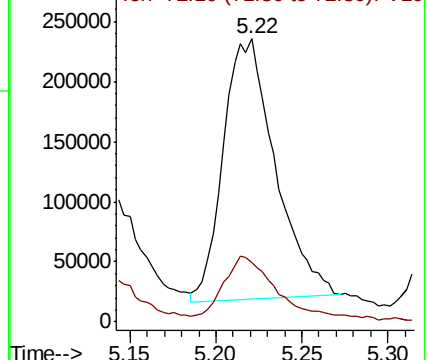
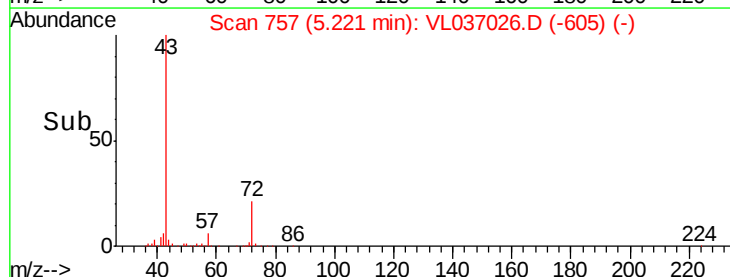
43 100

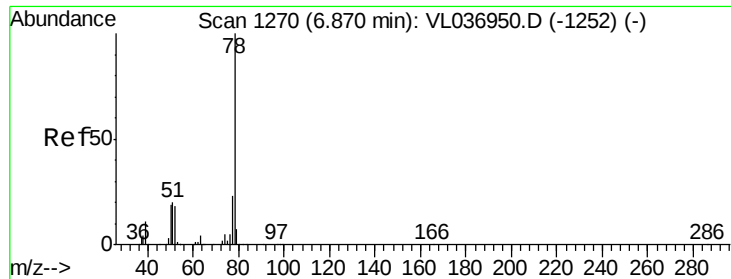
72 28.3 19.0 28.4



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 2.010 ppbv

RT: 6.86 min Scan# 1266

Delta R.T. -0.01 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

ClientSampleId :

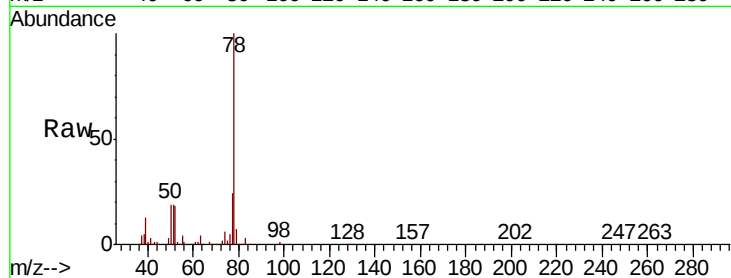
Tot Ion: 78 Resp: 628992

Ion Ratio Lower Upper

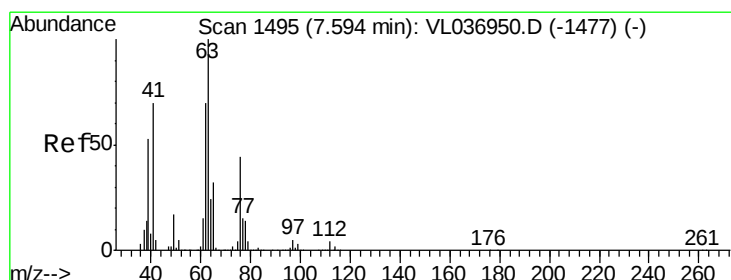
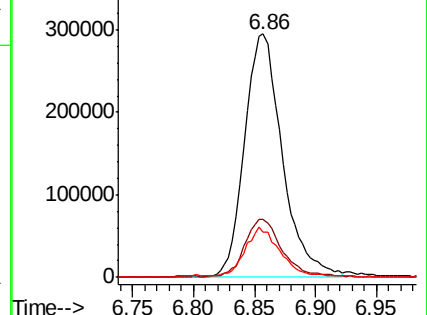
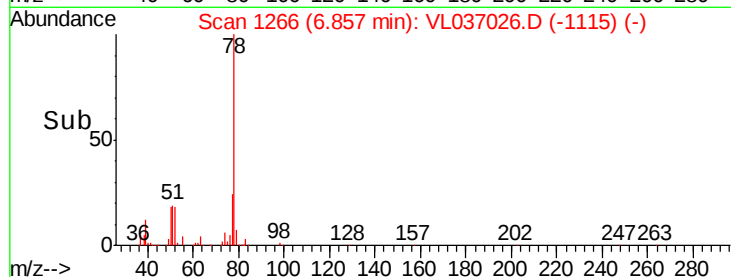
78 100

77 23.3 18.6 28.0

50 18.1 15.0 22.4



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.268 ppbv

RT: 7.14 min Scan# 1354

Delta R.T. -0.45 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

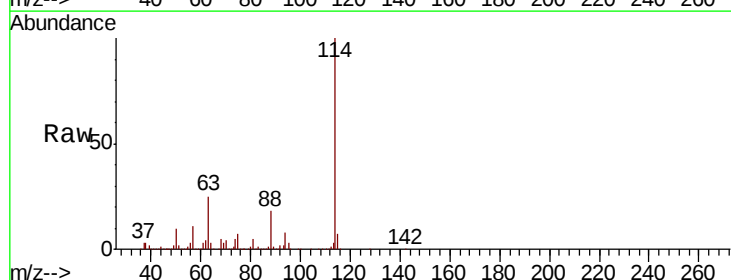
Tgt Ion: 63 Resp: 876158

Ion Ratio Lower Upper

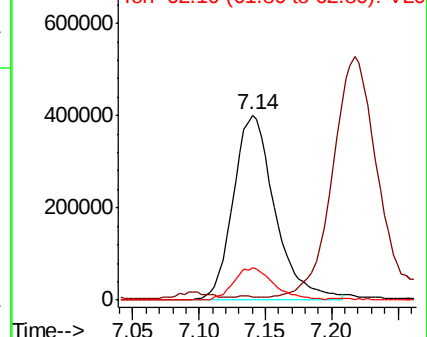
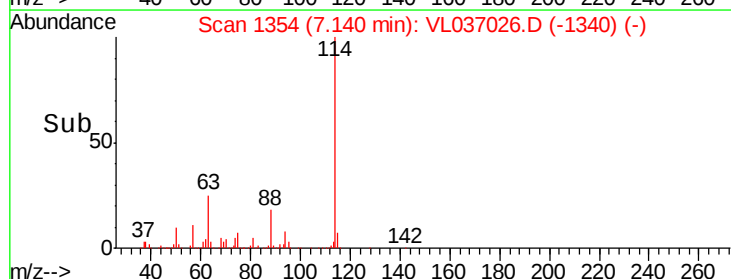
63 100

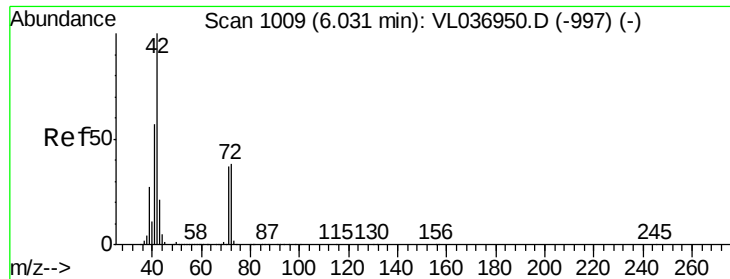
41 0.0 55.7 83.5#

62 17.4 56.2 84.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0

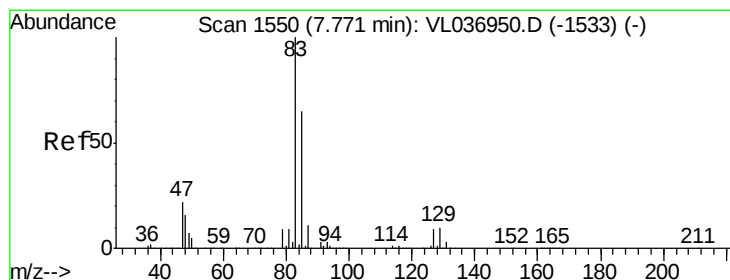
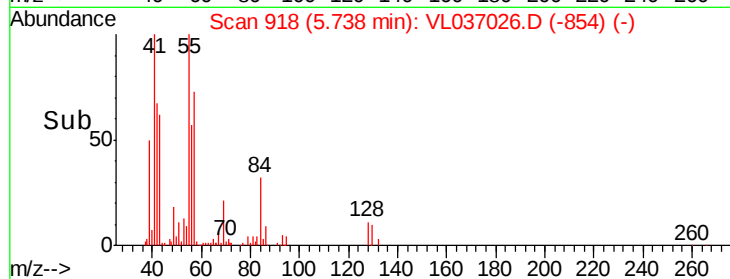
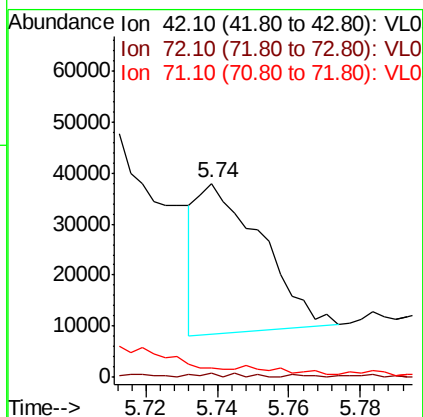
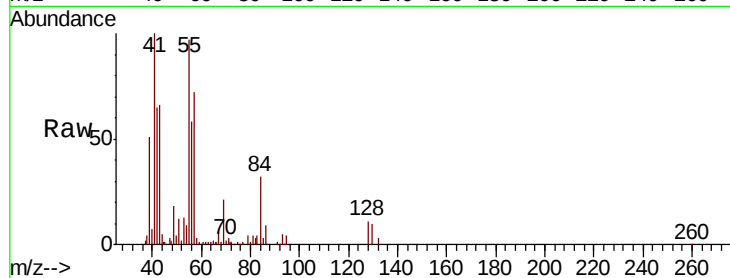




#41
Tetrahydrofuran
Concen: 0.487 ppbv
RT: 5.74 min Scan# 918
Delta R.T. -0.29 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

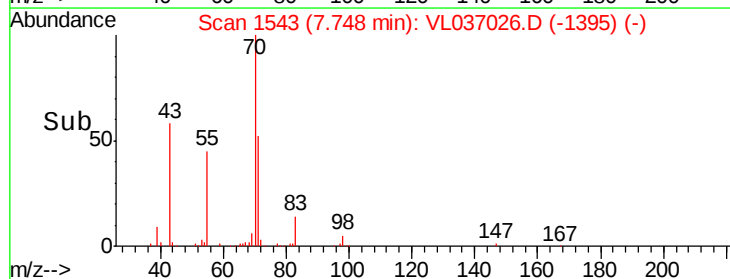
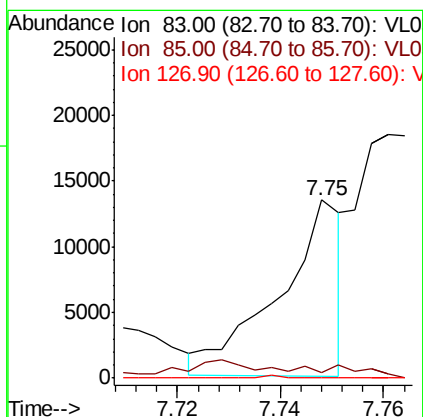
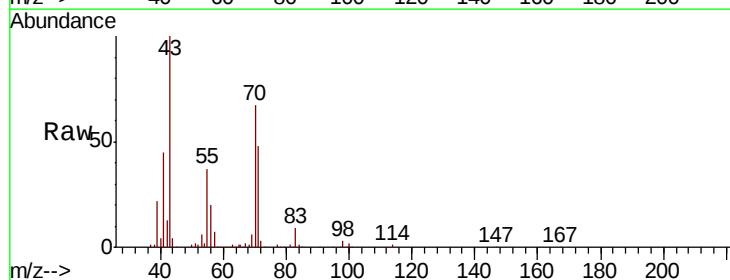
Instrument :
MSVOA_L
ClientSampled :

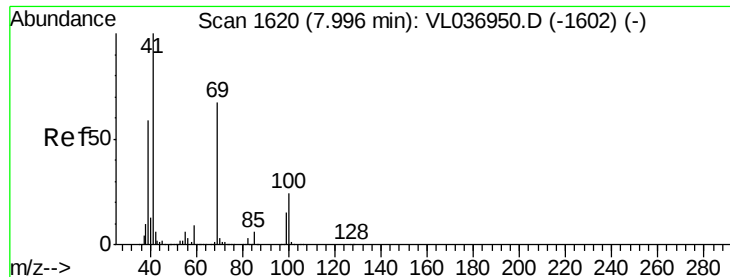
Tot Ion: 42 Resp: 36701
Ion Ratio Lower Upper
42 100
72 2.1 31.4 47.2#
71 0.0 30.4 45.6#



#42
Bromodichloromethane
Concen: 0.049 ppbv
RT: 7.75 min Scan# 1543
Delta R.T. -0.02 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

Tgt Ion: 83 Resp: 11419
Ion Ratio Lower Upper
83 100
85 0.0 51.7 77.5#
127 0.0 6.9 10.3#

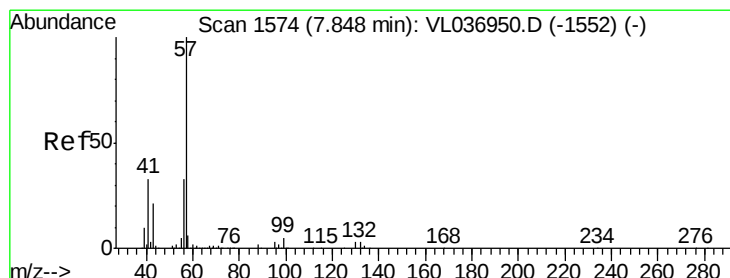
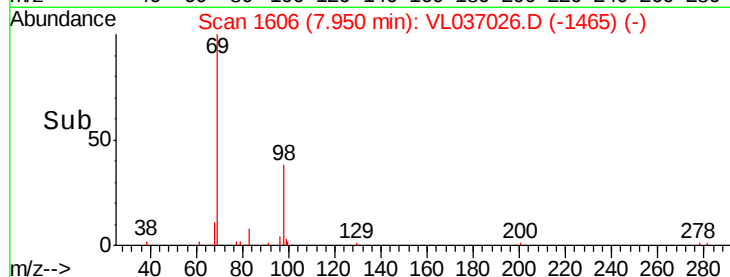
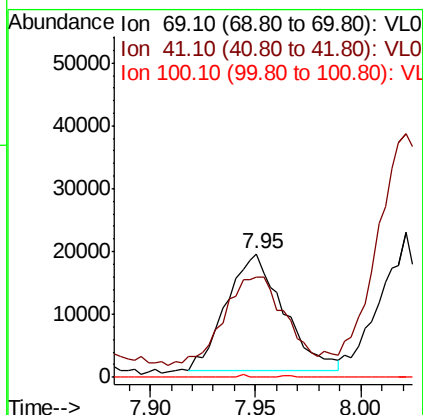
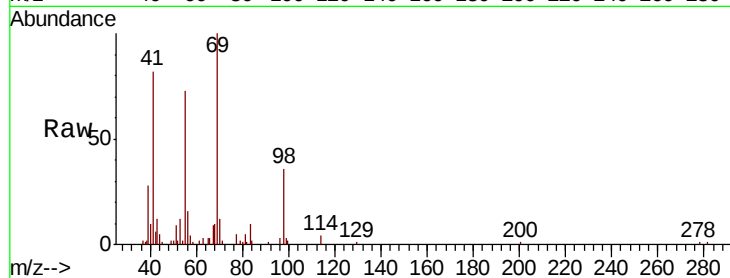




#43
Methyl Methacrylate
Concen: 0.327 ppbv
RT: 7.95 min Scan# 1606
Delta R.T. -0.05 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

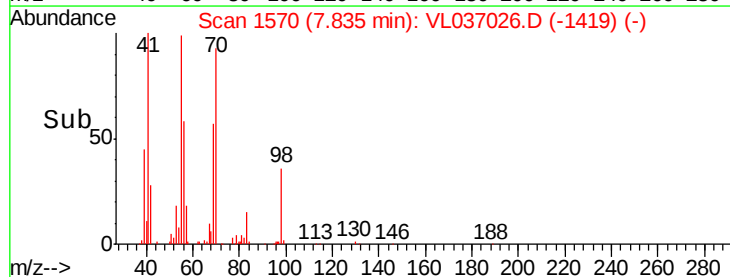
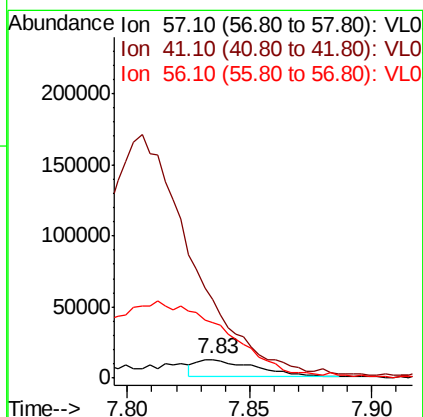
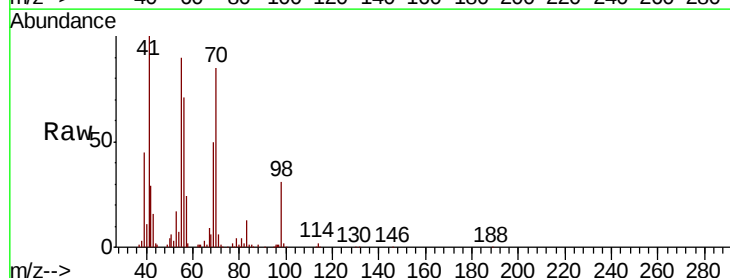
Instrument :
MSVOA_L
ClientSampleId :

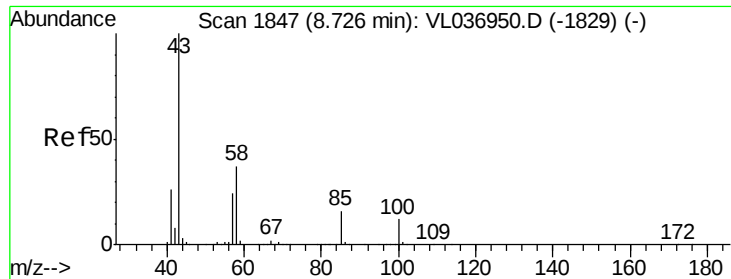
Tot Ion: 69 Resp: 35285
Ion Ratio Lower Upper
69 100
41 0.0 118.6 178.0#
100 0.0 28.2 42.4#



#44
2,2,4-Trimethylpentane
Concen: 0.035 ppbv
RT: 7.83 min Scan# 1570
Delta R.T. -0.01 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

Tgt Ion: 57 Resp: 18565
Ion Ratio Lower Upper
57 100
41 2602.4 27.0 40.4#
56 966.7 25.4 38.2#

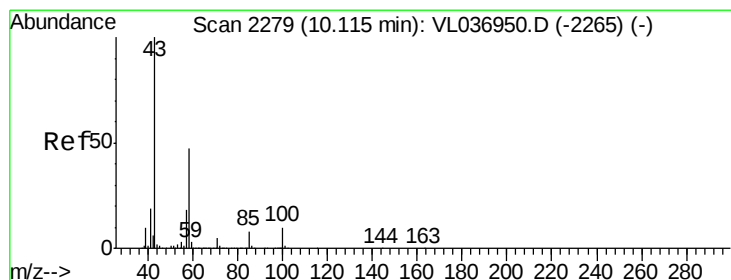
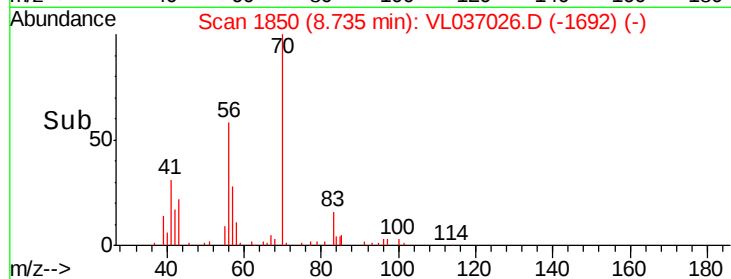
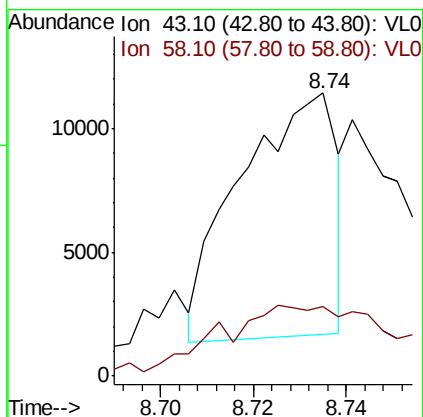
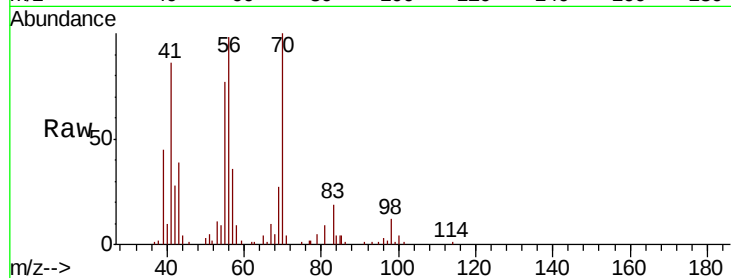




#50
4-Methyl-2-Pentanone
Concen: 0.065 ppbv
RT: 8.74 min Scan# 1850
Delta R.T. 0.01 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

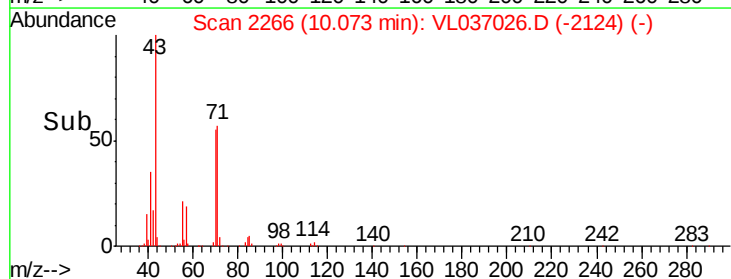
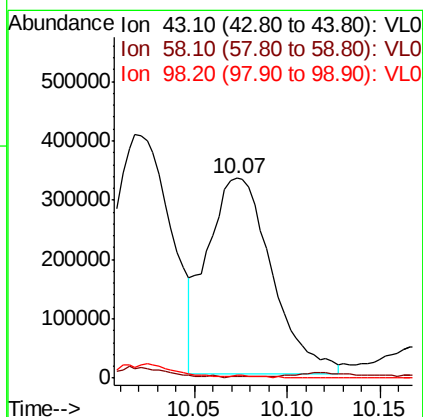
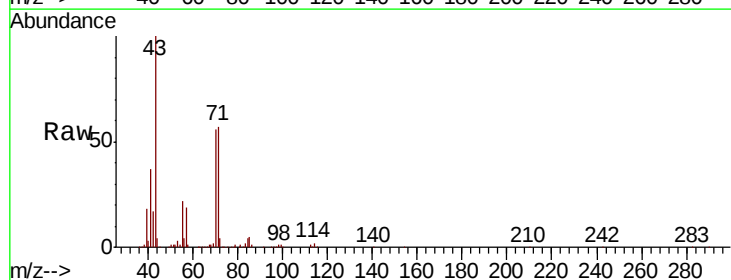
Instrument :
MSVOA_L
ClientSampleId :

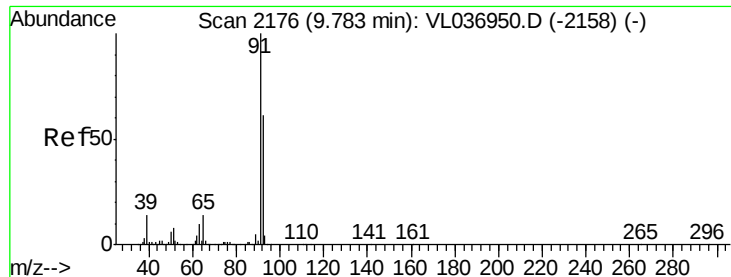
Tot Ion: 43 Resp: 14198
Ion Ratio Lower Upper
43 100
58 67.8 29.4 44.2#



#51
2-Hexanone
Concen: 6.870 ppbv
RT: 10.07 min Scan# 2266
Delta R.T. -0.04 min
Lab File: VL037026.D
Acq: 20 May 2021 16:37

Tgt Ion: 43 Resp: 792896
Ion Ratio Lower Upper
43 100
58 4.5 41.1 61.7#
98 0.0 0.1 0.1#





#53

Toluene

Concen: 0.662 ppbv

RT: 9.77 min Scan# 2171

Delta R.T. -0.02 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

Instrument :

MSVOA_L

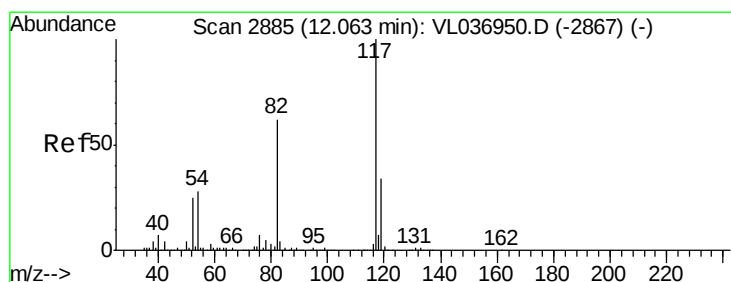
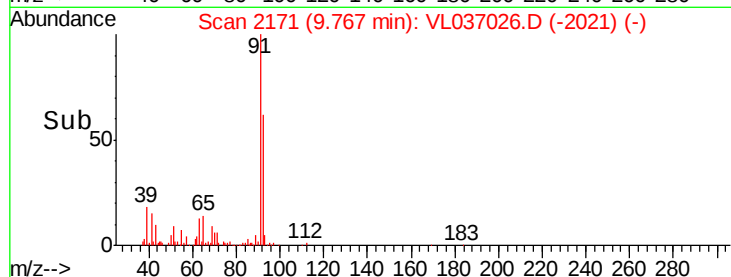
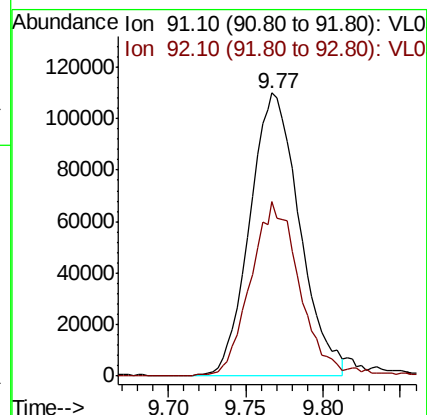
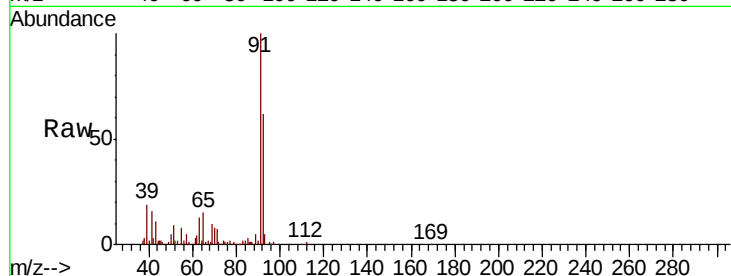
ClientSampleId :

Tot Ion: 91 Resp: 246551

Ion Ratio Lower Upper

91 100

92 61.7 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.05 min Scan# 2880

Delta R.T. -0.02 min

Lab File: VL037026.D

Acq: 20 May 2021 16:37

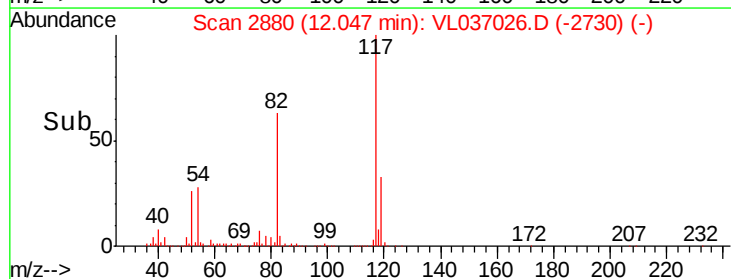
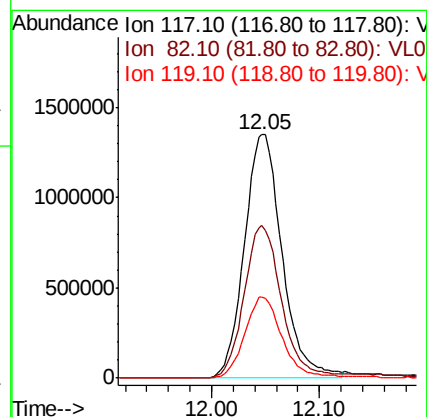
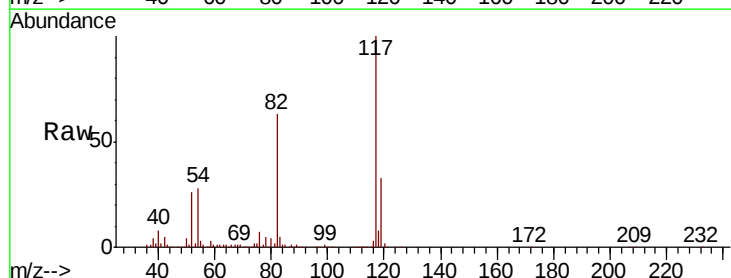
Tgt Ion: 117 Resp: 3285432

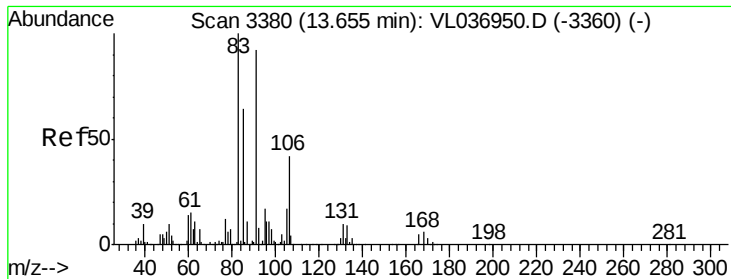
Ion Ratio Lower Upper

117 100

82 65.1 52.6 79.0

119 33.6 46.6 70.0#

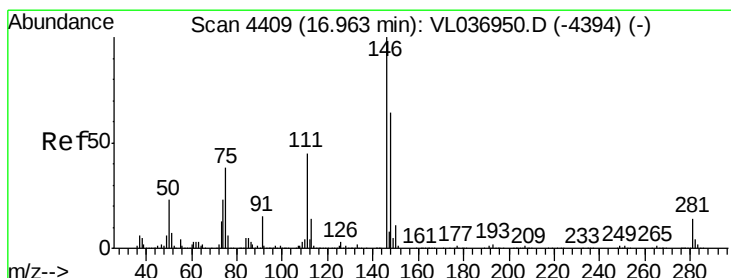
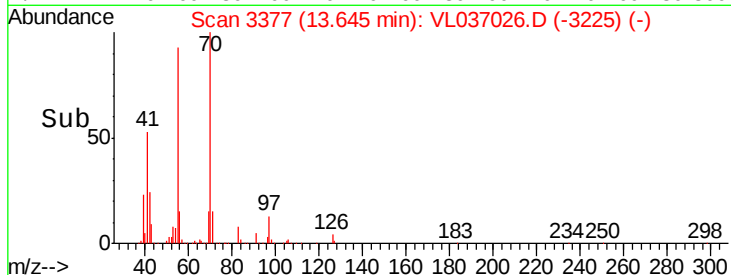
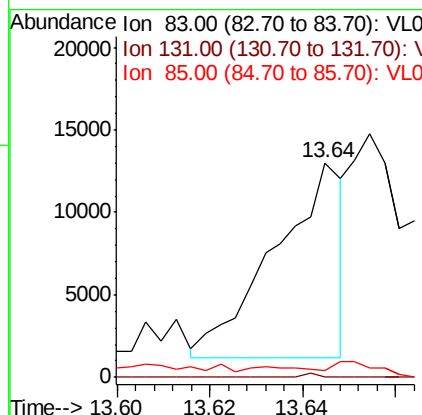
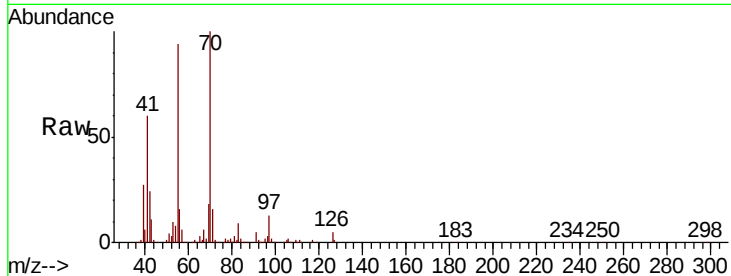




#63
 1,1,2,2-Tetrachloroethane
 Concen: 0.044 ppbv
 RT: 13.64 min Scan# 3377
 Delta R.T. -0.01 min
 Lab File: VL037026.D
 Acq: 20 May 2021 16:37

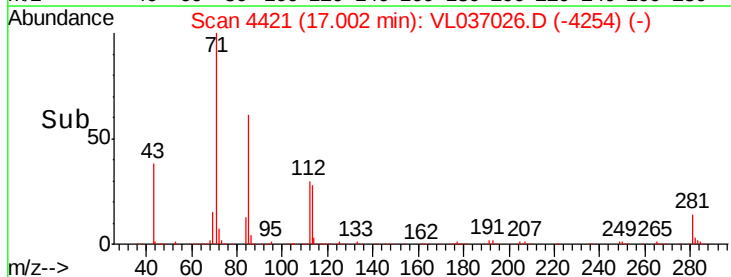
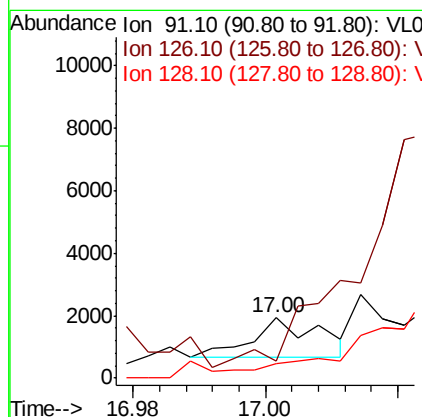
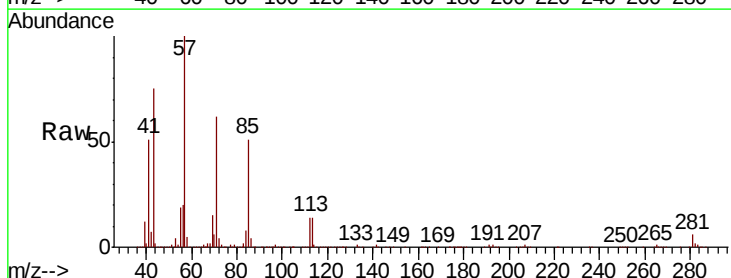
Instrument :
 MSVOA_L
 ClientSampleId :

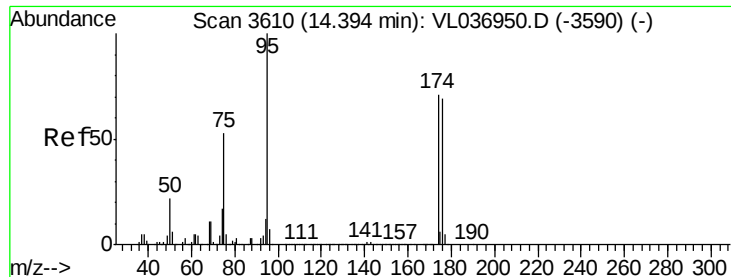
Tot Ion: 83 Resp: 12080
 Ion Ratio Lower Upper
 83 100
 131 0.0 5.0 15.0#
 85 19.4 32.9 98.6#



#66
 Benzyl Chloride
 Concen: 0.034 ppbv
 RT: 17.00 min Scan# 4421
 Delta R.T. 0.04 min
 Lab File: VL037026.D
 Acq: 20 May 2021 16:37

Tgt Ion: 91 Resp: 901
 Ion Ratio Lower Upper
 91 100
 126 919.3 16.5 24.7#
 128 54.7 5.5 8.3#

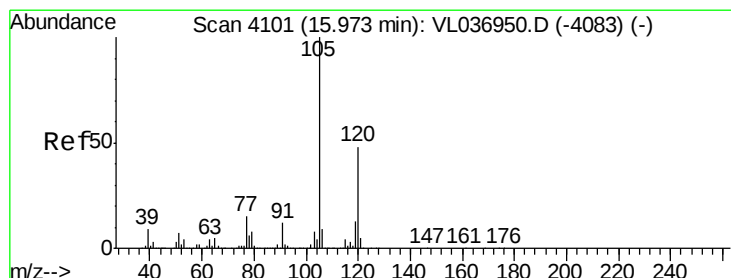
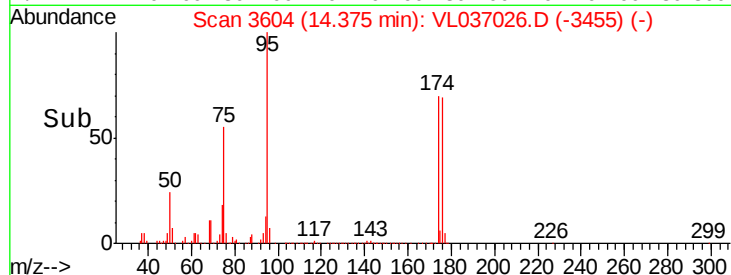
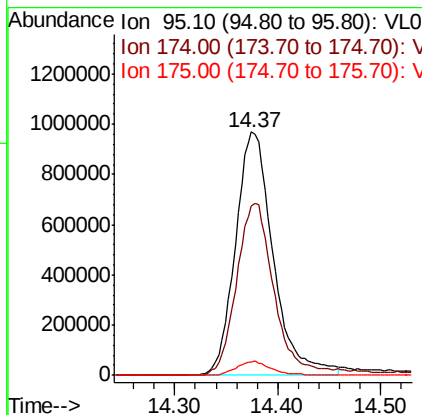
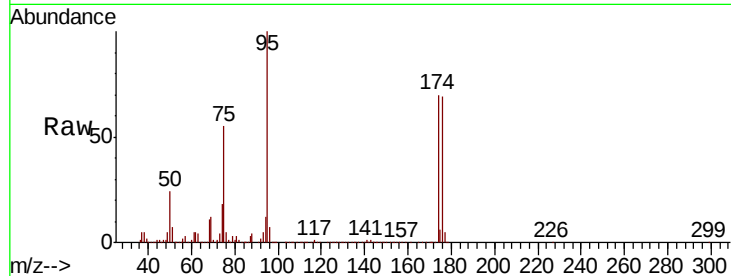




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.978 ppbv
 RT: 14.37 min Scan# 3604
 Delta R.T. -0.02 min
 Lab File: VL037026.D
 Acq: 20 May 2021 16:37

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2462705
 Ion Ratio Lower Upper
 95 100
 174 74.2 58.4 87.6
 175 5.5 4.4 6.6



#73
 1,3,5-Trimethylbenzene
 Concen: 0.051 ppbv
 RT: 15.96 min Scan# 4098
 Delta R.T. -0.01 min
 Lab File: VL037026.D
 Acq: 20 May 2021 16:37

Tgt Ion:105 Resp: 20682
 Ion Ratio Lower Upper
 105 100
 120 33.7 38.6 58.0#

